

1 **Amendments to the Claims:**

2 This listing of claims will replace all prior versions, and listings, of claims in the  
3 application:

4 **Listing of Claims:**

5 1. (Currently Amended) An electronic golf swing analyzer system, comprising:

6 a. an analyzer including an infrared sensor base and an ultrasonic sensor base,  
7 said infrared sensor base includes a hitting area with a center axis with two arrays of infrared  
8 sensors located therein used to detect the presence of a club head moving through said hitting  
9 area, each said array of infrared sensors being located on opposite sides and equal distance  
10 from said center axis, said ultrasonic sensor base being perpendicularly aligned and extending  
11 upward above said infrared sensor base, said ultrasonic sensor base including at least two  
12 ultrasonic sensors aimed at said hitting area, said ultrasonic sensors being located on opposite  
13 sides and equal distance from said center axis, said analyzing also including means for  
14 activating said ultrasonic sensor on the same side of said center axis as said array of infrared  
15 sensors located on the same side of said center axis when a golf club moves across said  
16 infrared sensor base;

17 b. a computer having working memory;

18 c. means for connecting said analyzer to said computer; and,

19 e. d. a golf swing analyzing software application loaded into said working memory  
20 of said computer, said software application capable of using the data from said ultrasonic  
21 sensors and said infrared sensors when a golf club swing is made over said hitting area to  
22 determine a golf ball's distance, direction, and flight path after impact.  
23

1 2. (Original) The electronic golf swing analyzer system, as recited in Claim 1, wherein said  
2 means for activating said ultrasonic sensors on the same side of said center axis when said  
3 array of infrared sensors are activated is a micro-controller coupled to said infrared sensors  
4 that activates said ultrasonic sensor.

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6 3. (Original) The electronic golf swing analyzer system, as recited in Claim 1, wherein said  
7 array of infrared sensors includes one outer infrared sensor and two inner infrared sensors.

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9 4. (Original) The electronic golf swing analyzer system, as recited in Claim 3 wherein said  
10 ultrasonic sensors are automatically activated to produce ultrasonic signals when a golf club  
11 moves over said arrays of infrared sensors, said ultrasonic sensors being aimed to transmit an  
12 ultrasonic signal and receive a reflected ultrasonic signal from a golf club moving over said  
13 array of infrared sensors located on the same side of said center axis.

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15 5. (Original) The electronic golf swing analyzer system, as recited in Claim 3, wherein the  
16 ultrasonic sensor located on one side of said center axis is coupled to said inner infrared  
17 sensors ~~to activate said~~ and activated by said inner infrared sensors.

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19 6. (Original) The electronic golf swing analyzer system, as recited in Claim 3, wherein each  
20 said infrared sensor include an infrared emitter and an infrared photodiode detector.

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22 7. (Original) The electronic golf swing analyzer system, as recited in Claim 6, wherein said  
23 infrared emitter and said infrared photodiode detector are located in a bushing fitted to said

1 infrared support base.

2 8. (Original) The electronic golf swing analyzer system, as recited in Claim 7, further  
3 including an infrared filter located over said photo-detector.  
4

5 9. (Original) The electronic golf swing analyzer system, as recited in Claim 8, further  
6 including a lens mounted over said photodiode detector to direct infrared radiation towards  
7 said photo-detector.  
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9 10. (Original) The electronic golf swing analyzer system, as recited in Claim 1, further  
10 including a rubber mat attached over said infrared sensor base.  
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12 11. (Original) The electronic golf swing analyzer system, as recited in Claim 1, wherein said  
13 means to connect said computer to said analyzer is a serial communications cable.  
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15 12. (Original) The electronic golf swing analyzer system, as recited in Claim 1, wherein said  
16 infrared support base and said ultrasonic support base are pivotally connected together along  
17 one edge thereby enabling said analyzer to be selectively opened and closed.  
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19 13. (Original) The electronic golf swing analyzer system, as recited in Claim 1, wherein said  
20 arrays of infrared sensors transmit and receive an infrared signal reflected from a golf club  
21 head moving over said array to detect the velocity of a golf club.  
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23 14. (Original) The electronic golf swing analyzer system, as recited in Claim 1, wherein said

1 ultrasonic sensors are automatically activated to produce ultrasonic signals when a golf club  
2 moves over said arrays of infrared sensors located on the same side of said center axis of said  
3 infrared support base, said ultrasonic sensors being aimed to transmit an ultrasonic signal and  
4 receive a reflected ultrasonic signal from a golf club moving over said array of infrared  
5 sensors located on the same side of said center axis.

6  
7 15. (Currently Amended) An electronic golf swing analyzer system, comprising:

8 a. an analyzer including an infrared sensor base and an ultrasonic sensor base,  
9 said infrared sensor base includes a hitting area with a center axis with two arrays of infrared  
10 sensors located therein used to detect the presence of a club head moving through said hitting  
11 area, each said array of infrared sensors include an infrared emitter and an infrared  
12 photodiode detector and being located inside a bushing mounted on opposite sides and equal  
13 distance from said center axis, said ultrasonic sensor base being perpendicularly aligned and  
14 extending upward above said infrared sensor base, said ultrasonic sensor base including at  
15 least ~~two a pair of~~ two ultrasonic sensors aimed at said hitting area, said ~~pair of~~ ultrasonic  
16 sensors being located on opposite sides and equal distance from said center axis, 3 said  
17 ultrasonic sensors being automatically activated to produce ultrasonic signals when a golf  
18 club moves over said arrays of infrared sensors, said ultrasonic sensors being aimed to  
19 transmit an ultrasonic signal and receive a reflected ultrasonic signal from a golf club moving  
20 over said array of infrared sensors located on the same side of said center axis;

21 b. a computer having working memory and a visual display means;

22 c. means for connecting said analyzer to said computer,

23 d. a golf swing analyzing software application loaded into said working memory

1 of said computer, said software application capable of using the data from said ultrasonic  
2 sensors and said infrared sensors when a golf club is swing is made over said hitting area to  
3 determine a golf ball's distance, direction, and flight path after impact and displaying said  
4 information on said display means.

5  
6 16. (Original) The electronic golf swing analyzer system, as recited in Claim 15, wherein  
7 said infrared support base and said ultrasonic support base are pivotally connected together  
8 along one edge thereby enabling said analyzer to be selectively opened and closed.

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10 17. (Original) The electronic golf swing analyzer system, as recited in Claim 15, further  
11 including a stance base connected to said infrared support base upon which a player stands to  
12 swing a golf club.

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14 18. (Original) The electronic golf swing analyzer system, as recited in Claim 17, wherein  
15 said stance base includes a grid surface.

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17 19. (Original) The electronic golf swing analyzer system as recited in Claim 18, wherein said  
18 stance base includes two hinged boxes.

19  
20 20. (Original) The electronic golf swing analyzer system, as recited in Claim 15, wherein  
21 said software program allows a user to select a specific club, ball, environmental conditions,  
22 and the player's profile (right handed or left handed golfer).